

WHAT IS CLAIMED IS:

1. A nonvirulent bacterium comprising a first gene encoding a nonsecreted foreign cytolyisin operably linked to a heterologous promoter and a second gene encoding a different foreign agent.
- 5 2. The bacterium of claim 1, wherein the cytolyisin is absent a functional signal sequence.
3. The bacterium of claim 1, wherein the cytolyisin is listeriolysin.
- 10 4. The bacterium of claim 1, wherein the bacterium further comprises a third gene encoding an invasin and a fourth gene encoding an autolysin.
5. The bacterium of claim 1, wherein the bacterium is a laboratory strain of *E. coli*.
- 15 6. The bacterium of claim 1, wherein the foreign agent is therapeutic to a eukaryote.
7. A eukaryotic cell comprising the nonvirulent bacterium of claim 1 further comprising the foreign cytolyisin.
- 20 8. The cell of claim 7, wherein the cell is phagocytic, pathogenic or diseased cell.
9. A method for introducing a foreign agent into a eukaryotic cell comprising the step of contacting the cell with the bacterium of claim 1 under conditions whereby the agent enters the cell.
- 25 10. The method of claim 9, wherein the bacterium is endocytosed into a vacuole of the cell, the bacterium undergoes lysis and the cytolyisin mediates transfer of the agent from the vacuole to the cytosol of the cell.
- 30 11. A method of generating an immune response to a foreign antigenic agent, comprising

the step of introducing the foreign antigenic agent into a cell of an patient by contacting the cell with a bacterium under conditions whereby the agent enters the cell,

said bacterium comprising a first gene encoding a nonsecreted foreign functional cytolysin operably linked to a heterologous promoter which expresses the cytolysin in the bacterium, and a second gene encoding the foreign antigenic agent, which is other than the cytolysin.

12. A method of generating an physiological response to a therapeutic agent, comprising the step of introducing the therapeutic agent into a cell of an patient by contacting the cell with a bacterium under conditions whereby the agent enters the cell,

said bacterium comprising a first gene encoding a nonsecreted foreign functional cytolysin operably linked to a heterologous promoter which expresses the cytolysin in the bacterium, and a second gene encoding the therapeutic agent, which is other than the cytolysin.